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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/699,320	10/31/2003	John Matthew Powers	125061	2547
<div>7590 05/03/2007</div> <div>John S. Beulick Armstrong Teasdale LLP Suite 2600 One Metropolitan Square St. Louis, MO 63102</div>				
			EXAMINER AFZALI, SARANG	
			ART UNIT 3726	PAPER NUMBER
			MAIL DATE 05/03/2007	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/699,320

Applicant(s)

POWERS ET AL.

Examiner

Sarang Afzali

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on Amendment filed 2/20/2007.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 6-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 6-200 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 10/31/2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- ☐ Notice of Informal Patent Application
- ☐ Other: _____

DETAILED ACTION

1. The indicated allowability of claims 6-20 is withdrawn in view of the newly discovered reference(s) to Anderson (U.S. 1,603,307). Rejections based on the newly cited reference(s) follow.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 6-12, and 14-20 are rejected under 35 U.S.C. 102(b) as being anticipated by Wagner (U.S. 5,230,183).

As applied to claims 6, 10, 15, 16, and 17, Wagner teaches an apparatus comprising of:

A pair of opposed locator pins (122, left side assembly, Fig. 3) configured to engage adjacent serrations formed on the turbine blade dovetail, each said locator pin comprising a first end (tip), a second end (the end inside the block), and a clamping section extending therebetween, said clamping section having a length that is substantially equal to a length of the blade dovetail;

a locator block (left side assembly 84 with frame 80 and block 120 with locator plate member 110, Fig. 3) supporting the locator pins wherein the locator block

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comprising a plurality of grooves sized to receive each said locator pin therein (note the grooves in the member 110, Fig. 3);

a slide block assembly including a push block (right side slidable assembly 86 with frame 82 and push block 110 including pins 112, Fig. 3) for engaging a blade dovetail surface opposite the serration and opposite said locator pins wherein the slide block assembly is configured to position the blade dovetail against the locator pin; and

a base member comprising a platform (base member 60 with rails 62, Fig. 3) comprising an end plate (100 and 102, Fig. 3), a bottom surface (bottom of 62 in contact with top of 64, Fig. 3), and an opposite upper surface (top surface of 62, Fig. 3) for supporting said slide block assembly (left assembly 120, Fig. 3) and said locator block (right assembly 120, Fig. 3), said slide block assembly is slidably coupled to said platform upper surface, said platform upper surface defining a slotted opening extending through said bottom surface, said opening configured to receive the blade airfoil.

Note that the slotted opening extending through from upper surface to the bottom surface of the platform and wherein, a lead screw (90, Fig. 3) runs in the middle of it, is still sized and capable of receiving the blade airfoil if it is properly placed on either left or right side of the screw (90).

Note that the locator plate (110, Fig. 3) comprises a stop (once dovetail is engaged it would stop at this plate) for positioning the blade dovetail in said apparatus.

As applied to claims 7 and 19, Wagner teaches an apparatus wherein the end plates (100 and 102, Fig. 3) extend from said platform upper surface (upper surface of rails 62 of frame 60, Fig. 3).

As applied to claim 8, Wagner teaches that the slotted opening (Fig. 3) provides access to the turbine blade.

As applied to claims 9 and 20, Wagner teaches that the slide block assembly (right side slidable assembly 86 with frame 82 and push block 110 including pins 112, Fig. 3) is movable (moving from left to right, Fig. 3) between a first position wherein the blade dovetail is removable from the slide block assembly, and a second position; wherein the blade dovetail is secured to the slide block assembly.

As applied to claim 11, Wagner teaches that the slide block assembly (right side slidable assembly 86 with frame 82 and push block 110 including pins 112, Fig. 3) engaging the dovetail surface opposite the serration, with the push block configured to limit an amount of travel of the slide block.

As applied to claim 12, Wagner teaches that a drive mechanism (in the form of hand wheel 104 and screw 90, Fig. 3) coupled to the end plates (100 and 102, Fig. 3) and the slide block in order to position the slide block (col. 4, lines 12-18).

As applied to claims 14 and 18, Wagner teaches a gauge plate comprising a gauge set block (the threaded cross member connecting both sides of member 80 and screw 90, Fig. 3) is coupled to the locator block (left side frame assembly 80 with slide 84 and block 120 with member 110, Fig. 3) (37, Fig. 1) for positioning the turbine blade

relative to the apparatus for providing a zero reference point. Note that by turning the wheel (104) a desired fixed (zero reference) point is established.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over Wagner in view of Broffitt (US 2,907,233). Wagner teaches the invention cited including a hand actuated drive mechanism for positioning the slide block but does not exclusively teach that the drive mechanism includes a pneumatic cylinder.

It would have been obvious to one of ordinary skill in the art at the time of invention to have used an automated drive including a pneumatic cylinder for positioning of the slide block, since it has been held that broadly providing a mechanical or automatic means to replace manual activity which has accomplished the same result involves only routine skill in the art. *In re Venner*, 120 USPQ 192.

Furthermore, Broffitt teaches an apparatus for manufacturing workpieces such as turbine blades wherein the blade (54) held in blade holder (56) is held against blade positioning points (78, 80, 82, Fig. 3) forced by a pneumatic cylinder (air cylinder 84). It would have been obvious to one of ordinary skill in the art at the time of invention to

have provided Wagner with an automated drive including a pneumatic cylinder to provide an effective means of securing workpiece within a work fixture.

Response to Arguments

6. Applicant's arguments with respect to claims 6-20 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sarang Afzali whose telephone number is 571-272-8412. The examiner can normally be reached on 7:00-3:30 M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Bryant can be reached on 571-272-4526. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic

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Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

S.A.

SA

4/27/2007



DAVID P. BRYANT
SUPERVISORY PATENT EXAMINER

4/30/07